StorageTek Tape Analytics

Security Guide

Release 2.0

E48502-02

June 2014

ORACLE

StorageTek Tape Analytics Security Guide, Release 2.0

E48502-02

Copyright © 2012, 2014, Oracle and/or its affiliates. All rights reserved.

Primary Author: Dan Ambrosich

Contributing Author: Cathleen Wharton Ph.D, Mark Mayernick

Contributor:

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

Contents

Preface

This document describes the security features of Oracle's StorageTek Tape Analytics (STA) version 2.0.

Audience

This guide is intended for anyone involved with using security features and secure installation and configuration of STA version 2.0.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

1

Overview

This section gives an overview of StorageTek Tape Analytics (STA) version 2.0 and explains the general principles of its security.

Product Overview

StorageTek Tape Analytics is an Oracle software product that provides customers with tape business intelligence to efficiently and proactively monitor and manage their data center's tape operations.

STA supports both Enterprise MVS and Open Systems tape customers. The STA solution provides value for low-to-high-end tape market customers.

Security

There are three aspects to STA security: physical, network, and user access.

Physical

STA needs to be installed on a standalone server within an organization's data center. Physical access to the server would be dictated by the Customer company policy.

Network

It is required that STA be added or configured to a Customer internal firewall protected network. This network needs SSH and SNMP access to libraries for which data will be accessed.

User Access

The STA Application access is controlled by username and password authentication. Usernames and passwords are setup during initial installation by the customer. Passwords must meet Oracle standard requirements.

General Security Principles

The following principles are fundamental to using any product securely.

Keep Software Up To Date

One of the principles of good security practice is to keep all software versions and patches up to date. This document is for the software level of:

STA Release 2.0

Note: The libraries and drives must also meet minimum firmware version levels that are connected to the STA application. These firmware levels are specified in the STA Planning and Installation Guide.

To enable the best security available, Oracle recommends keeping OS up-to-date with the latest security patches. However, because OS security patches are independent of the STA application, Oracle cannot guarantee that all patches will operate correctly with STA — especially patches released after an STA release. You will need to determine the acceptable OS security patch level for your environment.

Restrict Network Access

It is recommended the STA host server is kept behind a data center firewall. The firewall provides assurance that access to these systems is restricted to a known network route, which can be monitored and restricted, if necessary. As an alternative, a firewall router substitutes for multiple, independent firewalls. Identifying the hosts allowed to attach to the library and blocking all other hosts is recommended where possible.

Keep Up To Date on Latest Security Information

Oracle continually improves its software and documentation. For every STA release review this document for revisions. Specific security concerns may also be addressed in release notes as well.

2

Secure Installation

This section outlines the planning process for a secure installation and describes several recommended deployment topologies for the systems. The STA Planning and Installation Guide, Configuration Guide, and Administration Reference Guide cover installation, configuration, and administration in detail.

Understand Your Environment

To better understand security needs, the following questions must be asked:

Which resources need to be protected?

For STA the host server and the associated network must be protected from unauthorized access.

From whom are the resources being protected?

STA must be protected from everyone on the Internet, external users, and unauthorized internal users.

What will happen if the protections on strategic resources fail?

As STA is a device monitoring and usage application, unauthorized access to STA will only affect STA. The monitored devices and associated data will not be affected.

Installing StorageTek Tape Analytics (STA)

STA should only be installed on systems that are within the same protected (firewalled) network infrastructure as the monitored devices, that is, libraries. Customer access controls should be enforced on the systems where STA is installed to assure restricted access to the application.

Refer to the STA Planning and Installation Guide for installation instructions.

Post Installation Configuration

There are no post-installation configuration security changes. The configuration is set by the customer during installation.

Assign the user (admin) password.

The customer administration account password is set by the customer during the installation.

Enforce password management

Customer Corporate password management rules such as password length, history, and complexity must be applied to the administrator password.

3

Security Features

This section outlines the specific security mechanisms offered by the product.

The STA application provides user with encrypted password roles to protect itself. This is not the only line of security to protect the application. The application should be in a physically secured data center, which also has a secured network that allows access only to authorized users.

A

Secure Deployment Checklist

The following security checklist includes guidelines that help secure the library:

1. Enforce password management.
2. Enforce access controls.
3. Restrict network access.
   a. A firewall should be implemented.
   b. The firewall must not be compromised.
   c. System access should be monitored.
   d. Network IP addresses should be checked.
4. Contact your Oracle Services, Oracle Tape Library Engineering, or account representative if you come across vulnerabilities in Oracle tape drives.

B

References

Tape storage product documentation can be found at:

http://www.oracle.com/technetwork/documentation/tape-storage-curr-187744.html

StorageTek Tape Analytics Release Notes
Read this document before installing and using STA. It contains important release information, including known issues.

> **Note:** This document is bundled with the software.

StorageTek Tape Analytics Planning and Installation Guide
Use this book to plan for installation of STA, install the Linux platform, and install the STA software.

StorageTek Tape Analytics Configuration Guide
After installing the STA software, use this book to configure libraries, SNMP, email notification, services, identity management, and certificates.

StorageTek Tape Analytics Administration Reference Guide
Use this book to learn about STA administrative tasks, including server, services, and password administration.

StorageTek Tape Analytics User Interface Guide
Use this book to learn about the STA user interface. It describes the layout of screens and provides step-by-step instructions for modifying their display so you can tailor them to your needs.

StorageTek Tape Analytics Data Reference Guide
Use this book to learn about using and interpreting the data displayed by STA. It provides definitions for all library, drive, and media data fields displayed by STA. It also provides reference information for all STA toolbars and data input fields.